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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,179	07/11/2001	David M. Sellepack	026977-0109	9363

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FOLEY & LARDNER
777 EAST WISCONSIN AVENUE
SUITE 3800
MILWAUKEE, WI 53202-5308

EXAMINER
MUSSER, BARBARA J

ART UNIT	PAPER NUMBER
1733	7

DATE MAILED: 04/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/903,179	SELLEPACK, DAVID M.	
	Examiner	Art Unit	
	Barbara J. Musser	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-47 is/are pending in the application.

4a) Of the above claim(s) 33-47 is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-32 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3, 5-7 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-32, drawn to a method of making a three-dimensional mold, classified in class 156, subclass 244.11.

II. Claims 33-47, drawn to a three-dimensional structure, classified in class 428, subclass 212.The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made by a different method such as injection molding.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Scott Anderson on 1/1/3/03 a provisional election was made with traverse to prosecute the invention of group I, claims 1-32. Affirmation of this election must be made by applicant in replying to this Office action. Claims 33-47 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, it is unclear whether the first exterior surface refers to the paint layer or the bonding layer.

Regarding claims 2, 3, 28, and 29, the claims appear to indicate the sheet shrinks 40-90% of its original length prior to joining. However, the specification appears to suggest that the joining occurs after the sheet has shrunk 40-90% of the total amount of shrinkage, not of its total length. For the purposes of examination, it is assumed to mean the sheet has shrunk 40-90% of its total shrinkage rather than its total length.

Regarding claims 7-10 and 26, it is unclear which surface meant by the first exterior surface, as claim 1 indicates the first exterior surface is on the bonding layer attached to the paint layer while claim 7 indicates the first exterior surface refers to the extruded sheet. For the purposes of examination, it is assumed that the second exterior surface is intended to be at a temperature lower than the extrusion temperature rather than that the first exterior surface is intended to be at a temperature lower than the extrusion temperature.

7. Regarding claims 12, 14, and 15, while the claims require either a covalent adhesive or a cross-linking adhesive combined with a polyolefin, the specification describes the adhesive as a chlorinated polyolefin(CPO). Chlorinated polyolefins are polyolefins with chlorine substituted into the molecule itself. The definition of a CPO as an adhesive with a polyolefin is repugnant to those in the art as a CPO has a specific defined chemical structure, namely a polyolefin with some of the substituent hydrogens replaced by chlorine. While applicant may be his or her own lexicographer, a term in a claim may not be given a meaning repugnant to the usual meaning of that term. See *In re Hill*, 161 F.2d 367, 73 USPQ 482 (CCPA 1947). For the purposes of examination, claims 12, 14, and 15 are assumed to mean materials such as chlorinated polyolefins.

Regarding claim 21, it is unclear what compound is meant by PVDF. It is suggested PVDF be replaced by the compound name.

Claims 24 and 25 recite the limitation "the plurality of shapes" in line 1. There is insufficient antecedent basis for this limitation in the claim. It is assumed this claim is intended to be dependent from claim 23.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent

granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-3, 7, 8, 19, 20, 27-29, and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Reece et al.(U.S. Patent 5,895,624)

Reece et al. discloses forming a three-dimensional structure by extruding a polymer sheet up to 0.3 inches thick, joining a laminate comprising a paint film and adhesive to the sheet, and thermoforming the composite.(Col. 1, ll. 43-53; Col. 2, ll. 10-33)

Regarding claims 2, 3, 28, and 29, while Reece et al. does not specifically disclose joining the laminate to the sheet after 90% of the shrinkage has occurred, shrinkage takes place in the first few hours after extrusion. As the sheet can be purchased from a dealer(Col. 2, ll. 8-11), one in the art would understand that a considerable length of time had passed between extrusion and lamination and that therefore all the shrinkage would have already occurred.

Regarding claims 7 and 8, since the sheet can be bonded to the laminate after the sheet is purchased from a dealer, one in the art would understand that it would be below its melting point when it was bonded to the laminate.(Col. 2, ll. 7-12)

Regarding claims 19 and 20, the sheet can be made from polyethylene.(Col. 2, l. 19) The reference indicates the polyethylene can be unfilled, indicating to one in the art that the sheet can be formed from only polyethylene.

10. Claims 1, 4, 5, 7, 8, 21, 27, and 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Roys et al.(U.S. Patent 6,284,183).

Roys et al. discloses forming a three-dimensional structure by extruding a polymer sheet 0.25 inches thick, joining a laminate comprising a paint film bonded to a substrate via an adhesive to the sheet, and thermoforming the composite.(Col. 2, ll. 40-52; Col. 3, ll. 1-2; Col. 5, ll. 15-19)

Regarding claims 4 and 5, since the laminate is joined to the sheet via the adhesive at a given temperature, one in the art would understand that the adhesive would be joined at its activation temperature as below the activation temperature, the adhesive would not bond the laminate to the sheet. The sheet is extruded above 350F.(Col. 8, ll. 25)

Regarding claims 7 and 8, the sheet is laminated to the laminate at a temperature significantly lower than the extrusion temperature.(Col. 8, ll. 23-38)

Regarding claim 21, Roys et al. discloses the paint layer can have a clear coat composed of polyvinylidene fluoride on it.(Col. 4, ll. 24-25)

11. Claims 6, 11-15, and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Roys et al. as evidenced by the admitted prior art.

Roys et al. discloses using a chlorinated polyolefin to bond the paint film to the sheet.(Col. 11, ll. 24-29) According to the admitted prior art, such adhesives are covalent crosslinking adhesives with activation temperatures of approximately 270F.[0034]

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claims 16, 17, 22-25, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reece et al.

Regarding claims 16, 17, and 31, while the reference discloses the paint film and adhesive layer being 0.0015 inches thick, the reference admits the thickness is only exemplary.(Col. 2, ll. 35-36) One in the art would appreciate that other thicknesses such as 0.2 mils could be used when it was desired to use less paint. Absent unexpected results, the thickness is considered obvious.

Regarding claims 22-25, while the reference only discloses the paint layer may have pigment, one in the art would appreciate that it is well-known to form paint films with a variety of designs ranging from dots to camouflage dependent on the final end product. One in the art would appreciate that any of the well-known paint film designs such as camouflage could be used. Only the expected results would be achieved.

14. Claims 9, 10, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roys et al.

The reference does not disclose the temperature of the sheet being below 190F when it is bonded to the laminate. However, it does disclose that the temperatures can be adjusted to ensure the optical clarity of the paint film.(Col. 8, ll. 40-44) One in the art

would appreciate that the temperature used would depend on the paint composition used as different paints would retain their optical clarity at different temperatures and would bond the paint film to the sheet at different temperatures dependent on the paint composition. Only the expected results would be achieved.

15. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over either Reece et al. as applied to claim 1 above, and further in view of Belyeu(U.S. Patent 6,394,020).

Reece et al. discloses using the products for panels and other components for vehicles and other uses.(Col. 1, ll. 12-16) It does not disclose using the process to form a canoe. Belyeu discloses thermoforming a polymeric sheet into a canoe.(Col. 4, ll. 30-33) It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the process of Reece et al. to form a canoe since Reece et al. discloses the product can be used as portions of a vehicle and a canoe is a vehicle and since Belyeu discloses it is known to thermoform a canoe and that thermoformed canoes are less likely to break or collapse around the paddler.(Col. 2, ll. 15-22)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Barbara J. Musser** whose telephone number is **(703)-305-1352**. The examiner can normally be reached on Monday-Thursday; alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on 703-308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

BJM
March 23, 2003

Michael W. Ball
Supervisory Patent Examiner
Technology Center 1700